SYSTEM AND METHOD FOR COMMUNICATING ON A VIRTUAL RING IN AN INTERNET PROTOCOL NETWORK

Abstract

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The present invention is directed to a system, method, computer program in a node within a network comprising a transport layer protocol providing end to end data transfer, for multicasting datagrams on a virtual ring, each node on the virtual ring being

10   logically connected according to the network transport layer protocol to two and only two neighbor nodes through virtual connections, an upstream neighbor node and a downstream neighbor node. The method comprises the steps of:

- sending a virtual ring datagram to the downstream neighbor node on the virtual ring; said virtual ring datagram comprising a virtual ring identifier, means for identifying

15   the node originator of the virtual ring datagram, and data;

- receiving a token, identifying the virtual ring and forwarding the token to the downstream neighbor node on the identified virtual ring;

if the received datagram is a virtual ring datagram:

- identifying the virtual ring and checking the node originator of the received virtual

20   ring datagram;

if the received virtual ring datagram has not been locally originated:

- processing data comprised in said virtual ring datagram;

- forwarding said virtual ring datagram to the downstream neighbor node on the identified virtual ring;

25   if the received virtual ring datagram has been locally originated:

- removing the virtual ring datagram from the virtual ring.

Figure 3

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